

Chris O'Doherty
RAIB Relationship and recommendation handling manager
Tel No: 020 7282 3752
Email: chris.o'doherty@orr.gsi.gov.uk



17 July 2013

Ms Carolyn Griffiths
Chief Inspector of Accidents
RAIB
Rail Accident Investigation Branch
Cullen House
Berkshire Copse Road
Aldershot
GU11 2HP

Dear Carolyn

RAIB report: Fatal accident at Gypsy Lane footpath crossing, Needham Market, Suffolk

I write to report on the consideration given and actions taken in respect of the recommendations addressed to ORR in the above report published on 18 July 2012

The annex to this letter provides the detail of the consideration given and actions taken where recommendation 1 is being implemented, recommendation 4 is being implemented by alternative means and recommendations 2 and 3 are in progress. We expect to be able to update you on recommendations 2 and 3 by 31 December 2013. **We would also like to offer the opportunity to meet with RAIB to explain our thinking, leading to the status of being implemented by alternative means for recommendation 4, if you think that would be useful.**

If, in the course of carrying out assurance activity on the recommendations, we become aware of an inaccuracy in what we have reported we will write to you again.

Yours Sincerely



Chris O'Doherty

Head Office: One Kemble Street, London WC2B 4AN T: 020 7282 2000 F: 020 7282 2040
www.rail-reg.gov.uk

Initial Consideration by ORR

All 4 recommendations contained in the report were addressed to ORR when RAIB published its report on 18 July February 2012.

After considering the report / recommendations, on 22 August 2012, ORR passed all 4 Recommendations to Network asking it to consider and where appropriate act upon them.

Details of consideration given and any action taken, in respect of these recommendations are provided below.

Recommendation 1

The intent of this recommendation is for Network Rail to improve the safety of pedestrians at Gipsy Lane crossing.

Network Rail should arrange for the closure of Gipsy Lane footpath crossing.

If Network Rail is not granted permission by the local council to close Gipsy Lane footpath crossing, it should take appropriate risk-reduction measures so that pedestrians have sufficient time to cross safely, and are adequately warned of approaching trains.

Details of steps taken or being taken to implement the recommendation

1. Network Rail in its initial response 4 October 2012 advised that:

A Temporary Speed Restriction is already in place at Gipsy Lane Level Crossing to enable pedestrians to have sufficient warning time of approaching trains.

Consideration is being given to determine the best infrastructure solution at Gipsy Lane to be able to close the crossing (currently at [Governance Railway Investments Projects] GRIP stage 3 - Option Selection process).

Possible options include a subway or a footbridge at Gipsy Lane or Willow Walk (another footpath crossing 200 yards away), thereby enabling the closure of both crossings. Provisional conversations have already taken place with the local authority, which is supportive of the double closure.

It is currently proposed to complete the works by 31st March 2014.

2. At a liaison meeting between ORR and Network Rail, on 9 January 2013, Network Rail advised that:

Willow Walk crossing (about 200m from Gipsy Lane towards the curve the train approached the deceased from) has a temporary road closure in place and Gipsy Lane crossing has a speed restriction in place.

Willow Walk crossing sits on top of a high embankment with steps leading down to the access gates. This is considered an ideal location for an underpass. Gipsy Lane

is slightly raised above the land each side but not enough to easily facilitate an underpass.

3. ORR wrote to Network Rail, on 20 May 2013, requesting a timescale for decisions to be made and any agreed actions to be taken. Network Rail responded on 7 June 2013 advising that:

A firm decision has been made and agreed to by the Council, that an underpass will be installed at Willow Walk to support the permanent closure of Gipsy Lane and Willow Walk level crossings. The scheme has now been fully specified, is with the procurement team and has been put out to tender.

The procurement team are expecting returns by the end of June 2013 to enable the issue of a design and build contract by the end of July 2013.

Negotiations with the landowners each side of the railway have commenced.

The scheme is due to be implemented by the end of March 2014. However, until the contractors have returned their tenders (including details of construction methodology) Network Rail is not able to commit to any more detailed timescales.

ORR Decision

4. After reviewing information received from Network Rail, ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- taken the recommendation into consideration; and
- is taking action to implement it.

ORR is carrying out assurance activity and will write to RAIB if it becomes aware that the information above is inaccurate.

Status: Network Rail is taking action to implement the recommendation

Recommendation 2

The intent of this recommendation is for Network Rail to improve the accuracy and consistency of data collected at level crossings during site visits and make certain that any changes to previous data are fully understood.

Network Rail should have effective systems in place for accurate information gathering during data collection visits at level crossings.

Any changes from previous data collected should be clearly understood and feedback given to the relevant person where data is incorrect.

This includes data relating to:

- the number of crossing users where the quick census is undertaken;
- the use of whistle board protected crossings during the night-time quiet period;
- use of the crossing by vulnerable users;

- location of whistle boards;
- crossing length;
- traverse distance; and
- distance from each crossing gate and decision point to the nearest rail..

Details of steps taken or being taken to implement the recommendation

5. Network Rail in its initial response 4 October 2012 advised that:

The National Level Crossing Team will address this recommendation through one project remit to improve safety at passive crossings. This project includes the collection of data relating to the seven points listed in the recommendation. The complete scope for this project is currently being defined and agreed, with a target completion date of 30 September 2013.

The National Level Crossing Team is taking a number of measures to improve the accuracy and consistency of data collected at level crossings. The team is currently implementing dedicated resources - Level Crossing Managers, (LCMs) who will manage level crossings.

The LCMs, (project RM01), are being provided with a bespoke dedicated Level Crossing Manager training, (project RM02). This training has an interactive data collection element which is supported by a mentoring framework.

Two of the Risk Management projects which form part of the wider National Level Crossings Improvement Programme will provide further guidance on:

- *the use of Intelligent Sources and Information (project RM03) and;*
- *Involving Train Operating Companies, Local Authorities, Authorised Users' and the wider community to gather knowledge/ intelligence (project RM04).*

Guidance on gathering census data is also being provided as a result of a number of recommendations both formal and RAIB (Wrights no.19 and Mexico Footpath Crossing).

A dedicated human factors resource will be looking at human factors at level crossings, specifically traverse times. The findings will shape future guidance.

An additional reporting function has been provided in ALCRM [All Level Crossing Risk Assessment. Model], as part of project RM08 Management Information, which assists in the comparison of data from multiple site visits. There is a specific report for historical data. Continuity is to be improved by better pre-population of risk assessment forms with static data and part rationale for decision making. These additional reports will help identify trends and inconsistencies and will identify inaccuracies in level crossing site visits and maintenance inspections.

In addition, Smart Cams are currently being deployed, there is currently no fixed date for the national roll out of the cameras, however, funding is in place and a framework contractor has been contracted for an initial 500 locations which have been prioritised. The camera will have several uses but the main focus is on census

gathering and using that to better understand the risk profile at individual level crossings. Two trial sites on LNW have already been installed and the first data downloads are awaited. A detailed delivery plan will follow once the success criteria of the trial have been satisfied.

Timescale: 30 September 2013

ORR Decision

6. Following this incident Network Rail has improved its data handling and consistency in the Anglia Route. Network Rail expects further improvement when it restructures the Anglia Route level crossing management in 2013. There will be 13 Level Crossing Managers and a Route Level Crossing Manager reporting to the Operations Risk Advisor.

7. Network Rail is currently in the process of appointing Level Crossing Managers. It is expected that all Network Rail Level Crossing Managers will be trained and operational by May 2013.

8. After reviewing information received from Network Rail, ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- taken the recommendation into consideration; and
- is taking action to implement it.

ORR is continuing to engage with Network Rail and will update RAIB in December 2013.

Status: *In-progress* – ORR to update RAIB 31 December 2013

Recommendation 3

The intent of this recommendation is for Network Rail to develop guidance for use by the level crossing teams on the circumstances under which short-term mitigation measures are to be implemented at level crossings that have insufficient sighting or warning of approaching trains.

Network Rail should develop its guidance for use by level crossing teams to include:

- a clear definition of what constitutes a 'higher than usual' number of vulnerable users;
- implementing risk-reduction measures at crossings that have deficient sighting or warning times; and
- when speed restrictions must be imposed, what type of speed restriction is to be used (emergency, temporary or permanent) and the timescales for imposing speed restrictions.

Details of steps taken or being taken to implement the recommendation

9. Network Rail in its initial response 4 October 2012 advised that:

The National Level Crossing Team is engaged with human factors specialists. Part of their remit is to look specifically at what constitutes a 'higher than usual' number of vulnerable users.

SmartCams are on trial at two sites;

- *Woburn Sands Footpath Crossing; and*
- *Griffin Lane on the LNW route*

They form part of the wider Risk Management Programme.

SmartCams are intelligent cameras that have video analytic functionality and will be able to provide constant 24/7 information on who and what are using crossings. This will make census gathering a factual exercise. This is the first opportunity there has been to gather sources of data such as this.

Guidance is being produced as part of project (RM05) Interim Risk Mitigation. This project focuses largely on deficient sighting and there is a project manager and support assigned to the work. An update on progress made will be available on 4th December 2012.

In addition it should be noted that training has been improved, with the introduction of a dedicated Level Crossing Manager training programme for Level Crossing Managers (project RM02).

The procurement toolkit already provides some guidance on mitigations and associated costs. Consideration is being given to develop a cost effective solution at sites affected by deficient sightings.

As regards to bullet point 3, this is rejected on the basis that it is considered to be extremely difficult to determine exactly when and where it is appropriate to apply speed restrictions; and it should be left to professional/expert judgement at the time.

Work is underway with RSSB to consider including speed restrictions as a mitigation measure in the Level Crossing Risk Management Toolkit (LXRMTK) – Rec A5.2 from [Network Rail's] Formal Investigation Gipsy Lane report refers. It should be noted that speed restrictions can be used in a multitude of scenarios.

Timescale: 30 April 2013

10. ORR was not satisfied with the initial response to address Bullet point 3 of the recommendation. ORR therefore wrote to Network Rail, on 30 November 2012, asking Network Rail to reconsider its response.

11. Network Rail in its response, on 21 December 2012, advised:

The National Level Crossing Team will proceed by reviewing and revising the existing interim risk guidance, with a target completion date of 31 March 2013.

In addition, the National Level Crossing Team has worked with the Rail Safety & Standards Board (RSSB) to add Speed Restrictions (Emergency, Temporary and Permanent) as a mitigation measure in the Level Crossing Risk Management Toolkit.

12. On 29 April 2013 Network Rail provided ORR with its level crossing guidance document LCRMIP-RM05 'Managing Interim Risk Guidance' and supporting brief, produced by the Network Rail National Level Crossings Team.

13. On 30 April 2013 NR advised a revised completion date of 31 October 2013, due to awaiting RSSB research on 'Higher than Usual Number of Vulnerable Users' and need to consult on findings before incorporating into the 'Interim Risk Management Guidance'.

ORR Decision

14. After reviewing information received from Network Rail, ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- taken the recommendation into consideration; and
- is taking action to implement it.

ORR is not satisfied that Network Rail has adequately addressed the recommendation and continues to engage with Network Rail. ORR will update RAIB in December 2013.

Status: *In Progress:* ORR will update RAIB by 31 December 2013

Recommendation 4

The intent of this recommendation is for Network Rail to enhance the cost-benefit analysis function within the ALCRM so that all benefits are properly considered.

Network Rail should combine within the ALCRM the two different cost-benefit analysis tools currently used by the level crossing risk management teams so that all benefits are properly considered as part of the cost-benefit analysis of risk reduction measures.

Details of steps taken or being taken to implement the recommendation

15. Network Rail in its initial response 4 October 2012 advised that:

The requirements outlined in the recommendation will be added to the phase 2 changes to the All Level Crossing Risk Model (ALCRM).

The Level Crossing Team will be mandating the use of a single Cost Benefit Analysis (CBA) tool contained within ALCRM; thus removing the ambiguity and inconsistency of having two CBA tools. This will be in collaboration with other parts of the business to agree the requirements for the single CBA tool.

Timescale: 30 April 2013

16. Subsequently Network Rail advised that it now intends to meet the intention of the recommendation by alternative means, by removing CBA from ALCRM and mandating the use of its standalone CBA. This will be modified to properly model level crossing risk reduction, linking to the RSSB Safety Risk Model.

17. Network Rail has acknowledged the failings of CBA within ALCRM. The main issues are that ALCRM cannot 'recognise' the benefits of changes to risk control measures that are not those already measured by ALCRM.

18. An increase in CBA sensitivity to properly recognise benefits of all potential changes (for example brighter wig wags, fitting of extended hoods to wig wag lights etc) would require a fundamental re-write of ALCRM software. Network Rail intend therefore to meet the intention of the recommendation using an alternative method.

19. NR is producing a new Level Crossings CBA tool using an enhanced version of its standalone NR CBA that is used across the rest of the business.

20. Work is underway to link the nature of any proposed level crossing upgrade (eg the examples given above) to an estimated reduction in relevant hazardous event scores within the Safety Risk Model. The estimated risk reductions are being produced by an expert panel that considers each potential improvement and its effects.

21. Comparison of a new level crossing risk score with the national average risk score will produce a net present value (financial) for the implementation of the proposed change.

22. The tool also allows benefits of maintenance efficiencies arising from the proposed changes to be estimated and taken into account.

23. Network Rail has given a date of 31 August 2013 for completion of the prototype CBA tool. Once the standalone level crossing CBA is operational, it is intended that the ALCRM CBA function will be 'switched off'.

ORR Decision

24. After reviewing information received from Network Rail, ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, Network Rail has:

- taken the recommendation into consideration; and
- is taking action to implement it by alternative means.

ORR is carrying out assurance activity and will write to RAIB if it becomes aware that the information above is inaccurate.

Status: *Network Rail is taking action to implement the recommendation by alternative means*